1. Identification

Product identifier

**AFIDOPYROPEN 50 G/L**

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: crop protection product, insecticide

Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Operating Division Crop Protection

Telephone: +49 621 60-27777
E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

Acute Tox. 3 (Inhalation - mist)
Skin Corr./Irrit. 3
Aquatic Acute 1
Aquatic Chronic 1
For the classifications not written out in full in this section the full text can be found in section 16.

**Label elements**

**Globally Harmonized System (GHS)**

**Pictogram:**

![Pictogram](image)

**Signal Word:**

Danger

**Hazard Statement:**

- **H316** Causes mild skin irritation.
- **H331** Toxic if inhaled.
- **H400** Very toxic to aquatic life.
- **H410** Very toxic to aquatic life with long lasting effects.

**Precautionary Statements (Prevention):**

- **P261** Avoid breathing mist.
- **P271** Use only outdoors or in a well-ventilated area.

**Precautionary Statements (Response):**

- **P304 + P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **P311** Call a POISON CENTER or doctor/physician.
- **P391** Collect spillage.

**Precautionary Statements (Storage):**

- **P403 + P233** Store in a well-ventilated place. Keep container tightly closed.
- **P405** Store locked up.

**Precautionary Statements (Disposal):**

- **P501** Dispose of contents/container to hazardous or special waste collection point.

**According to UN GHS criteria**

Hazard determining component(s) for labelling: AFIDOPYROPEN

**Other hazards**

**According to UN GHS criteria**

See section 12 - Results of PBT and vPvB assessment.
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

crop protection product, insecticide, Dispersible Concentration (DC)

Hazardous ingredients (GHS)

According to UN GHS criteria

Cyclopropanecarboxylic acid, \([3S, 4R, 4aR, 6S, 6aS, 12R, 12aS, 12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester

Content (W/W): 4,9 %
CAS Number: 915972-17-7
Aquatic Acute 2
Aquatic Chronic 1
H401, H410

Alcohols, C12-18, ethoxylated propoxylated

Content (W/W): < 70 %
CAS Number: 69227-21-0
Aquatic Acute 2
H401

propylene carbonate

Content (W/W): < 15 %
CAS Number: 108-32-7
EC-Number: 203-572-1
INDEX-Number: 607-194-00-1
Eye Dam./Irrit. 2A
H319

Propane-1,2-diol

Content (W/W): < 20 %
CAS Number: 57-55-6
EC-Number: 200-338-0

For the classifications not written out in full in this section the full text can be found in section 16.
4. First-Aid Measures

**Description of first aid measures**

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

**Indication of any immediate medical attention and special treatment needed**

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

**Extinguishing media**

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

**Special hazards arising from the substance or mixture**

carbon monoxide, Carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

**Advice for fire-fighters**

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage...
6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**
Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

**Environmental precautions**
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product.
Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

**Reference to other sections**
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

**Precautions for safe handling**
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:
Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

**Conditions for safe storage, including any incompatibilities**
Segregate from foods and animal feeds.
Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

**Specific end use(s)**
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.
8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

57-55-6: Propane-1,2-diol
108-32-7: propylene carbonate

Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form: liquid
Colour: golden yellow
Odour: odourless
Odour threshold: Not determined since toxic by inhalation.

pH value: approx. 7 - 9
(1 % (m), 20 °C)
Melting temperature: < 0 °C
boiling temperature: approx. 184 °C
Flash point: 107 °C
Evaporation rate: not applicable
Flammability: not flammable

Lower explosion limit:
As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Upper explosion limit:
As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Ignition temperature: 385 °C
Vapour pressure: approx. 0,2 hPa
Density: approx. 1,03 g/cm3

Relative vapour density (air): not applicable
Solubility in water: dispersible
Partitioning coefficient n-octanol/water (log Kow): not applicable
Thermal decomposition: 330 °C, 290 kJ/kg
(onset temperature)
Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
Viscosity, dynamic: approx. 160 mPa.s
(20 °C)

Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

Other information

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity
Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid
See MSDS section 7 - Handling and storage.

Incompatible materials
Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity
Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Of high toxicity after short-term inhalation.

Experimental/calculated data:
LD50 rat (oral): > 2.000 mg/kg
No mortality was observed.

LC50 rat (by inhalation): > 0.55 - < 1.22 mg/l 4 h

LD50 rat (dermal): > 5.000 mg/kg
No mortality was observed.

Irritation
Assessment of irritating effects:
Not irritating to the eyes. Skin contact causes slight irritation.

Experimental/calculated data:
Skin corrosion/irritation rabbit: Slightly irritating.

Serious eye damage/irritation rabbit: non-irritant
Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:
Buehler test guinea pig: Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyran-3,4-yl]methyl ester
Assessment of carcinogenicity:
In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was observed. The effect is caused by an animal specific mechanism that has no human counter part.
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Reproductive toxicity

Assessment of reproduction toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.
Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester

Assessment of repeated dose toxicity:
Repeated exposure to large quantities may affect certain organs.

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Aspiration hazard

No aspiration hazard expected.
The product has not been tested. The statement has been derived from the properties of the individual components.

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Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:
Very toxic to aquatic life with long lasting effects.

Toxicity to fish:
LC50 (96 h) 0,97 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
EC50 (48 h) 1,92 mg/l, Daphnia magna

Aquatic plants:
EC50 (72 h) > 100 mg/l (growth rate), Pseudokirchneriella subcapitata

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-e]pyran-4-yl]methyl ester

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (28 d) 0,000004 mg/l, Mysidopsis bahia

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Persistence and degradability
Assessment biodegradation and elimination (H2O):
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-epyan-4-yl]methyl ester

Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

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Bioaccumulative potential

Assessment bioaccumulation potential:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-epyan-4-yl]methyl ester

Assessment bioaccumulation potential:
Does not accumulate in organisms.

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Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-epyan-4-yl]methyl ester

Bioaccumulation potential:
Bioconcentration factor: 0.06
Does not accumulate in organisms.

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Mobility in soil

Assessment transport between environmental compartments:
Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Cyclopropanecarboxylic acid, [(3S,4R,4aR,6S,6aS,12R,12aS,12bS)-3-[(cyclopropylcarbonyl)oxy]-1,3,4,4a,5,6,6a,12,12a,12b-decahydro-6,12-dihydroxy-4,6a,12b-trimethyl-11-oxo-9-(3-pyridinyl)-2H,11H-naphtho[2,1-b]pyrano[3,4-epyan-4-yl]methyl ester

Assessment transport between environmental compartments:
Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.
Other adverse effects

The product does not contain substances that are listed in the Montreal Protocol on substances that
deplete the ozone layer.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner
as the substance/product.

14. Transport Information

Land transport

ADR
UN number UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains AFIDOPYROPEN)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: Tunnel code: E

RID
UN number UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains AFIDOPYROPEN)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known
Inland waterway transport

ADN

UN number: UN3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains AFIDOPYROPEN)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains AFIDOPYROPEN)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Marine pollutant: YES
Special precautions for user: None known

Air transport

IATA/ICAO

UN number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains AFIDOPYROPEN)
Transport hazard class(es): 9, EHSM
Packing group: III
Environmental hazards: yes
Special precautions for user: None known

UN number
See corresponding entries for “UN number” for the respective regulations in the tables above.

UN proper shipping name
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

**Transport hazard class(es)**
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

**Packing group**
See corresponding entries for “Packing group” for the respective regulations in the tables above.

**Environmental hazards**
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

**Special precautions for user**
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

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</table>

**15. Regulatory Information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

To avoid risks to man and the environment, comply with the instructions for use.

**16. Other Information**

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

- Acute Tox.
- Skin Corr./Irrit.
- Aquatic Acute
- Aquatic Chronic
- Eye Dam./Irrit.
- H401
- H410
- H319

**Acute Tox.** Acute toxicity
**Skin Corr./Irrit.** Skin corrosion/irritation
**Aquatic Acute** Hazardous to the aquatic environment - acute
**Aquatic Chronic** Hazardous to the aquatic environment - chronic
**Eye Dam./Irrit.** Serious eye damage/eye irritation
**H401** Toxic to aquatic life.
**H410** Very toxic to aquatic life with long lasting effects.
**H319** Causes serious eye irritation.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's
properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.